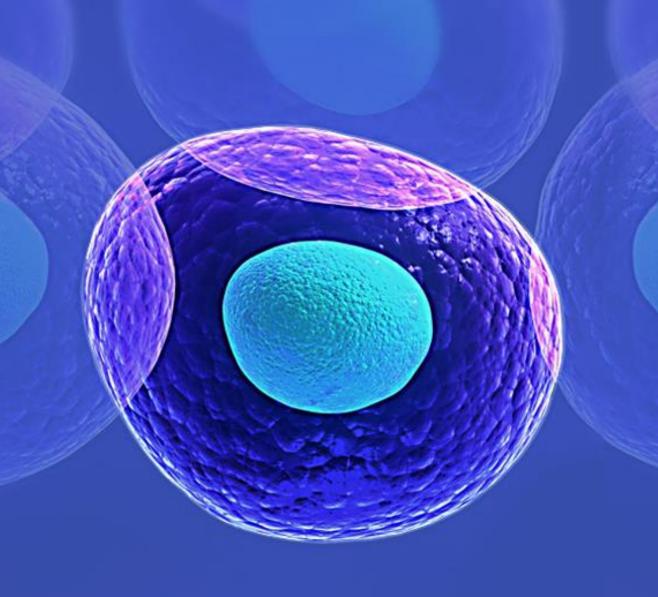


Management Presentation

November 2023





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A unique value proposition

MISSION

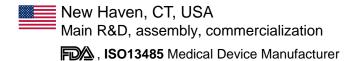
CORE ABILITY

PRODUCT

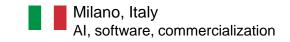
• A diagnostic company founded to revolutionize laboratories' workflow through automation and data analysis

Automated detection, analysis and interpretation of rare and extremely rare cells

 Ikoniscope20 digital fluorescence microscope system - A combination of proprietary instrument, software applications and reagents covered by numerous international patents

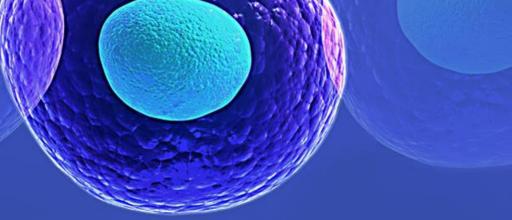






Ikonisys' technology enables early, accurate **cancer detection**

We offer a unique fully-automated solution for diagnostics laboratories







An experienced international management team with proven track record





Mario Crovetto CEO

- · CFO of **Eurand NV** (Specialty Pharma), which he brought to NASDAQ in 2007
- · Various general management and finance positions notably at Recordati (Pharma), Montedison (Specialty Chemicals)
- Director of OpGen, a molecular diagnostic company listed at NASDAQ
- MSc in Business Economics at Harvard University





Alessandro Mauri CFO

- Portfolio Manager at Cambria, a private equity fund regulated by FCA
- Founder and CEO of **B10NIX**. a biotech startup active in biosignal processing
- Master in Corporate finance at SDA Bocconi
- MSc in Global Finance at Fordham University (NY)
- MSc in Engineering of Computing Systems (major: Robotics and AI) at Politecnico di Milano





Michael Kilpatrick, PhD CSO

- · Research at University of Wisconsin-Madison. University of Alabama at Birmingham, the Imperial **Cancer Research Fund** laboratories in London. University of Connecticut **Health Center**
- Wellcome Trust Lecturer in Molecular Genetics at University of Birmingham
- · PhD in Chemistry at University of Birmingham
- >100 scientific publications in human molecular genetics





Juergen Schipper CCO

- Experience in General Management, Business and Commercial Development
- Founder and Managing Director of **Microbionix GmbH and Diagnostics & Life Science Consulting**
- Interim Management at companies such as **Luminex Corporation and Omega Diagnostics**
- Master Science (Environmental Sciences): Giessen University of **Applied Sciences**
- MBA: Munich University of **Applied Sciences**

Years of experience



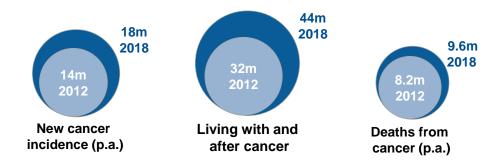






A clear need for fully automated systems in cancer diagnostics

Cancer: a deadly burden for humankind

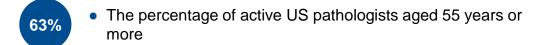


• Survival rates at 5 years, early stage vs late stage:

	Breast	Lung	Colorectal	Ovarian
Stage I-II	>90%	>70%	>90%	>90%
Stage III-IV	~15%	~14%	~20%	~5%

Shortage of pathologists is a bottleneck for diagnosis





- The portion of active UK pathologists that already work overtime
- The percentage of UK pathology labs that have to outsource service on a weekly basis because of shortage of pathologists

Implication: pathologists will need digital, automated systems to deliver more outcomes in less time, with higher specificity / granularity of data

> Results of recent market survey:

- Users of automated systems are aware of system advantages (e.g. efficiency, throughput, less handling risks)
- 60% of automated users plan to purchase a new automated system within the next 2 to 3 years (add on)
- Above 80% of users would want to buy a fully automated and integrated system





An integrated system for fully automated analysis and interpretation

Ikonisoft broad range of Diagnostic Applications

Test-specific applications in various fields



Reagents

Consumables

Optimized for Ikoniscope







Prenatal Oncology FISH

Immunology*

ik nisys

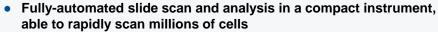


ik nisys









Ikoniscope20max

- Single instrument for **multiple applications**, currently including tests for various cancer types and CTC
- Fast and accurate, to increase laboratories' throughput

Ikoniscope20 Robotic Digital Microscope

 Automated analysis of up to 160 slide with the high-volume variant Ikoniscope20max for high-throughput laboratories

Maintenance

Service agreements Renewed yearly Remote fault diagnosis



Data storage, remote connectivity

Data driven

Networking with virtually any laboratory Internet-based remote access



Fully integrated technology platform - Instrument, software applications and consumables

Ikoniscope20

Fully automated slide handling, cell detection and analysis, data capture, data storage and (remote) review

*In study





Ikoniscope20 greatly improves the laboratory's workflow

	J. C. C.			h	Q _O	
	Biopsy Small sample of tissue/fluid taken from patient	Preparation Cells are prepared on slides	Preselection Identification of areas of interest	Analysis Signal patterns analysed under a microscope	Interpretation Evaluation of signal pattern distribution	Outcome Support diagnosis, prognosis and treatmen decision making
Current manual workflow	8	8	8	×	×	Highly operator dependent. Subject to potential errors
Ikoniscope20 fully-automated workflow	×	Ø			⊘	Efficient, reliable and convenient
Manual Automation with Biocare's instrument		Automated slide preparation with reagents optimized for the Ikoniscope	Automated pre- classification & pre- characterisation, selection of results	ikonisys' intelligent software applications automatically quantitate, qualify and present cells for review (highly significant reduction in professional time and related costs)		The high degree of automation and analysis eliminates outcome subjectivity and improves test repeatability
Fully automated		BIOCARE		ik nisys		

> Ikoniscope20 cuts down up to 65% of the manual workflow through automation, significant cost/time efficiency improvements

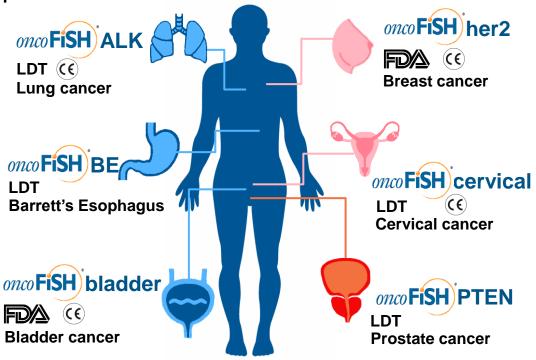




A wide current portfolio of diagnostic tests about common diseases

Oncology FISH

Fluorescence In Situ Hybridization - a technique that identifies and quantifies specific genes in cells. Used for **diagnostics** and **personalized medicine**



Liquid biopsy / CTC (Circulating Tumor Cells)

Aneuploidy-based CTC detection, for early cancer diagnosis, prognosis and treatment monitoring







- Flexible approach detection and analysis of CTC based on any combination of biomarkers
- No need for enrichment up to 2 million cells per slide
- Full characterization of cells
- Cancer-specific applications developed with Sheba Medical Center

Prenatal diagnosis







Fully automated detection of fetal cells for **prenatal** diagnosis of chromosomal aneuploidies

LDT – Laboratory developed test

> The current portfolio addresses a wide variety of common diseases that Ikonisys can help detect faster and with more efficacy





Value proposition: cost and time saving while increasing quality

Multi-purpose: optimized CAPEX

- Multiple applications: FISH, CTC, infectious disease, immuno-oncology
- Analyze tissues and biological fluids, hybridized with any desired combination of probes
- Fully customizable product, for flexibility (area, # scans,...)

Time Saving

- Selective scanning, to concentrate analysis only on area of interest, decreasing average scanning time
- Truly walk-away capabilities allow unattended and overnight scanning for greater slide volumes.
- Auto-report with meaningful info

Cost Saving

- Increased lab productivity, saving additional FTEs and allowing a balanced workflow
- Less consumables used, thanks to selective scanning (stain only useful areas).
- Increased lamp life

Deep Analysis

- 3-D, high-resolution microscope scanning and digitization
- Proprietary algorithm with 100% accuracy*
- Quantitative and qualitative (e.g. morphology) analysis to refine the search for the right cells

Diagnostic confidence

- Higher confidence in patient assessment thanks to the higher amount of observations
- Avoid potential errors, eliminating outcome subjectivity
- Automatically produce a readable and reliable report

Data-driven remote capabilities

- Digitization and storing/sharing easily integrated with the majority of LIS, for remote diagnosis and second opinion
- Remote control capabilities
- Remote maintenance for cost saving

^{*} Zwaenepoel et al, ExpMolPathol 2015 LIS - Laboratory Information System





Solving key challenges of liquid biopsy through oncoCTC

- CTC are cells that detach from a tumor and circulate in blood. They can be present in small numbers long before metastasis.
- These cells can offer clinical utility to guide disease management or early diagnosis
- A major challenge is the rarity of these cells addressed by the Ikoniscope, thanks to automated microscopy and software-based classification

Large number of cells examined

« If there is only one cell in the analysed sample, ikonisys will be able to identify and qualify it »

Tshering Dorji, Head of Pathology, TOMA Lab

No enrichment needed

Detects all of the wide variety of CTC cell types, including epithelial and mesenchymal cells

Flexible approach

CTCs by FISH (for nucleic acids) as well as Antibodies (for proteins)

Deep Analysis & Interpolation

High resolution imaging provides detailed morphological information

Diagnostic confidence

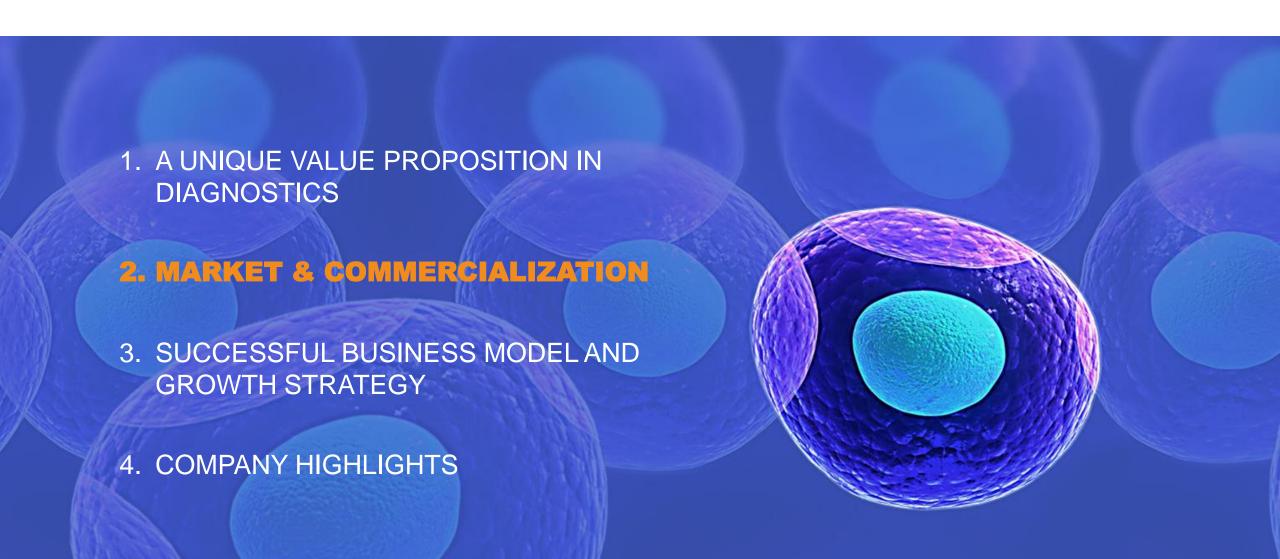
For the development of cancer specific CTC-based test

Full characterization

CTC provides characterization of individual tumor cells ctDNA provides global tumor genotype information



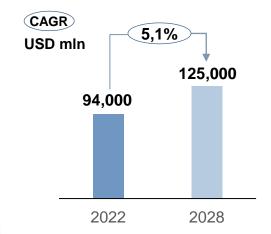






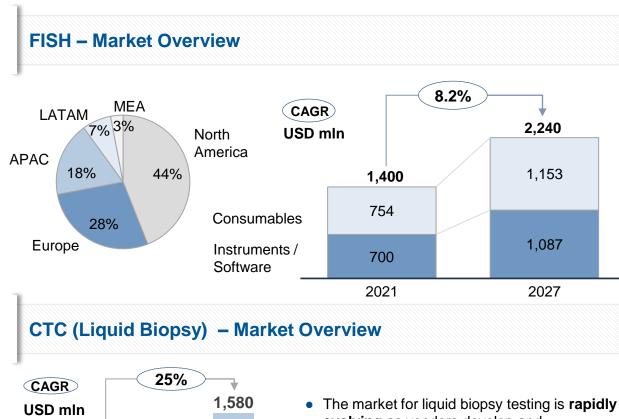
A market with fast growing opportunities

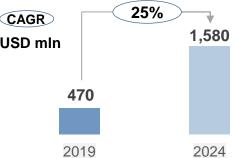
IVD Industry - Market Overview



IVD segments - Oncology

- Tissue-based testing for cancer and molecular tests for both cancer and infectious disease will be the main growth engine of the overall In Vitro Diagnostic industry.
- Growth in oncology is based on demographic transition (aging societies) and higher number of tests driven by personalised medicine (e.g. FISH companion diagnostics & others).





The market for liquid biopsy testing is **rapidly evolving** as vendors develop and commercialize innovative new technologies to meet the needs of the clinical diagnostic market.

FISH continues to outgrow the IVD market - CTC is a game changer



A new alliance for a worldwide commercialization strategy

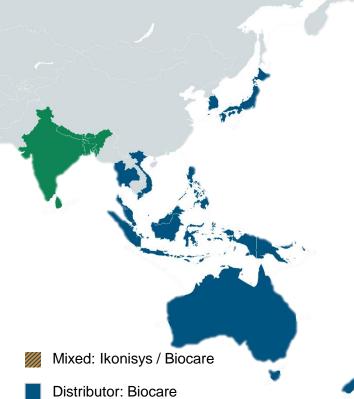


Leverage on Biocare's established commercial network in the USA

- Biocare will exploit its distribution network, which accounts for more than 4,000 laboratories all around the world
- •24 month target: >35 instruments
- •Customers will benefit from a **full solution**, including reagents, automated slide preparation and slide analysis
- •Royalties to Ikonisys on all reagents used with the Ikoniscope
- •**Ikonisys** will continue to support existing customers, notably **high-volume** laboratories

Mixed approach in Europe and the rest of the world

- •Europe: Ikonisys-Biocare coexclusivity, including sale of reagents, with focus on "pay-per-test" model
- •24 month target Europe: >10 instruments
- •APA: Biocare distributing the Ikoniscope, with Ikonisys receiving royalties on all reagents used with the Ikoniscope
- •24 month target APA: >5 instruments
- •Middle East, Northern Africa and India: Integrated Gulf Biosystems as distributor



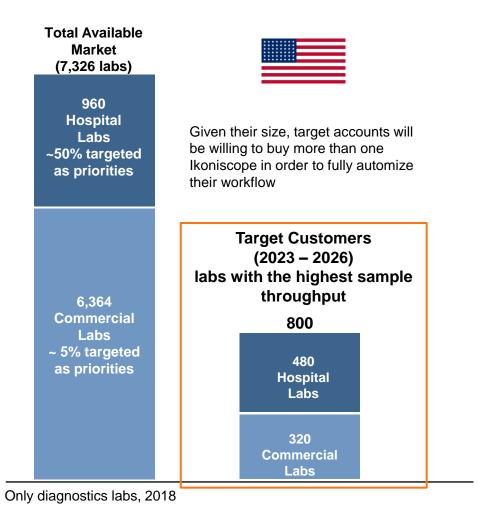
Distributor: Integrated Gulf

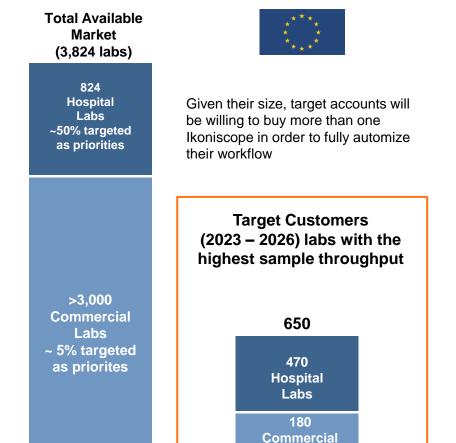
Biosystems





The US and European market: >1.4k labs targeted in the short term





Labs

Only diagnostics labs, 2018

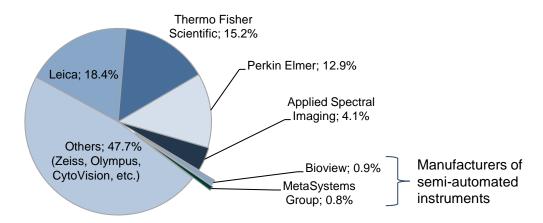
Due to Ikoniscope's high-level of automation, target labs will include those that would like to perform FISH testing but currently do not because of lack of staff / resources





Ikonisys unique positioning in an attractive market

Global FISH market and (semi-) automation

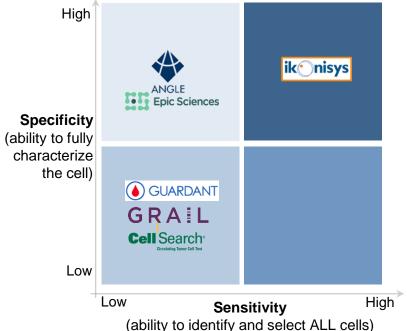


Ikonisys differentiating approach

- •Fully integrated & automated system, enumerating, classifying and presenting diagnostically relevant cells without user intervention
- True walk-away system
- No requirement for Dark-Room
- •Comprehensive remote capabilities (LIS connectivity, remote control, remote maintenance)
- One-stop solution for different applications, including Liquid Biopsy

Ikonisys cutting-edge approach in CTC

- Flexibility: detection and analysis of CTC based on any combination of biomarkers
- No need for enrichment: up to 2 million cells per slide
- Able to scan for CTC:
 - based on chromosome signals (aneuploidy detection)
 - any type, regardless of cell size or markers expressed



y to identify and select ALL cells)

Source: Brandessence 2018, DLS Consulting 2018







Ikoniscope20 placements driving recurring revenues



Sales driver

- Ikoniscope20 solutions Instrument, software applications and optional add-ons
- Different commercial solutions depending on the client's degree of specialization, volumes and financial preference
- Starting from one single software application to several
- Option to add additional slide loader for high volumes
- Direct sale, rent or lease, to accommodate all needs



Reagent kits

- Offered to clients at competitive conditions
- Ensuring greater performance on our installed base
- In the USA: royalty on reagents sold by Biocare Medical
- In Europe: direct sale to customer, with the possibility of a reagent rental / pay per use model



Software applications

- License fees renewed annually
- Additional applications added regularly, addressing new types of cancers based on market demand
- Allows the implementation of pay-per-use / reagent rental model



Service agreements

- Renewed annually
- Low maintenance costs / high margins
- Recurring revenues are secured by instruments installations





Next-generation Ikoniscope AI: a quantum leap for personalized medicine

Artificial intelligence: a tool in the hands of the pathologist









Al will be integrated in the pathologist's workflow, to enhance efficiency and expand possibilities

Example of current usage of deep learning

Input: image of tissue sample



Output: segmentation with location of detected nuclei and their class



A well-defined path to the next-generation instrument

1 Al algorithms

Self-learning Al algorithms for increased speed and enhanced decision making

Current step

Cutting-edge direct imaging technology

Novel, miniaturized tech for acquisition and analysis of both dark field and bright field

2 Big data

Analytics on Big Data gathered over the past 12 years, to further expand the capabilities of the platform

4 Data integration

Integration of all patient specific **data**, for truly personalised medicine

Ikoniscope AI will deliver further innovations, integrating the latest breakthrough in hardware and software





A strong network of development partners

CTC – Circulating Tumor Cells





- Sheba Medical Center, one of the 10 best hospitals in the world*
- Partnership to develop novel cancer-specific CTC tests with a variety of potential clinical utilities, including treatment monitoring and companion diagnostic
- Sheba's research team, led by Prof. Iris Barshack together with Ikonisys will work to develop new Ikoniscope20 CTC tests
- **Definition of the protocol** for the development of novel CTC tests initially targeting **pancreatic**, **breast and lung cancer**.
- Specific biomarker panels have been identified for testing



- Acts as reference lab for Europe.
- New tests identified for development

[__] = Latest updates

IkoniscopeAl



- Collaboration with prof. Boracchi, professor of Computer Vision and Machine Learning, for the implementation of novel deep learning solutions for image segmentation and cells classification.
- First implementation of a deep learning neural network for segmentation
- Sponsored a PhD student that will continue studies on AI for pathology.

Immuno-oncology



- Evaluate the potential of the Ikoniscope platform in the detection and quantification of specific populations of cells for immuno-oncology
- Results so far demonstrated the capability of the Ikoniscope20 platform to enumerate specific populations of CD8 T-cells[†].
- These results provide an excellent demonstration of the ability of the Ikoniscope20 to detect rare cells in general and CTC in particular
- Manuscript in preparation

This broad network address future markets and enhances in-house R&D









Key investment highlights

1 Truly digital pathology platform

- Based on a flexible software backbone for identification of rare cells.
- Designed to expand applications in existing and new fields.
- The advantage of microscope-grade images with digital image analysis.

2 Focus on customers needs - Full automation

- Full automation, integration & data interpretation capabilities.
- Allow for top-quality outcome and high-productivity enhancement in laboratories.
- Significant cost/time efficiency improvement
- Fully scalable solution, adaptable to customer's needs

3 Attractive markets - Oncology and immunology

- Enables Personalised Medicine for a broad spectrum of cancer patients.
- Active in FISH and ready to address the high-growth CTC/Liquid Biopsy market
- Additional commercialisation opportunities ex-cancer: infectious disease and veterinary
- Partnership with an established segment leader to expand commercialization

4 Clear growth strategy

- Ikoniscope20 ready for commercial scale-up
- Integrated product portfolio Instruments, applications, reagents
- Clear development roadmap
- Significant upside from CTC applications
- Al-based, personalized medicine platform under development





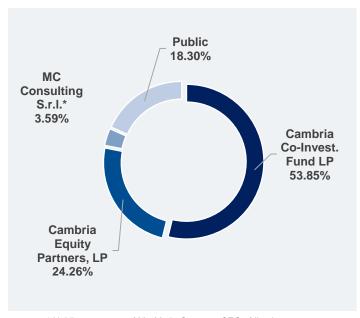
Company information

Euronext Growth Paris: IKONISYS | ISIN: FR00140048X2 | Ticker: ALIKO

Corporate structure



Shareholders



^{*} Holding company of Mr. Mario Crovetto, CEO of Ikonisys

Stock information

Listing date: July 19, 2021

• # of shares outstanding: 9,784 M

Market Cap: 14 M€



Analysts' coverage







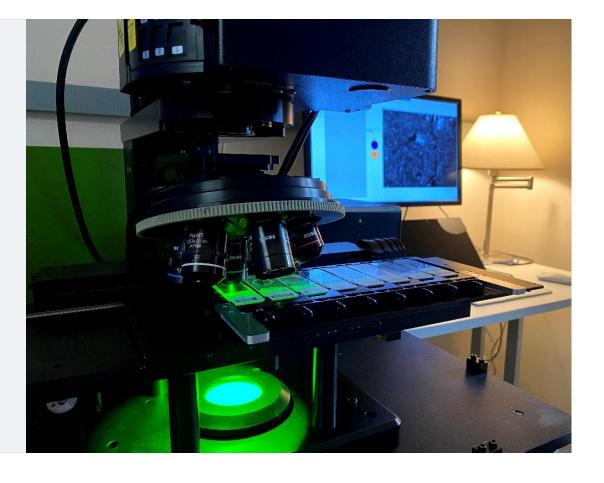


Ikonisys, **SA**

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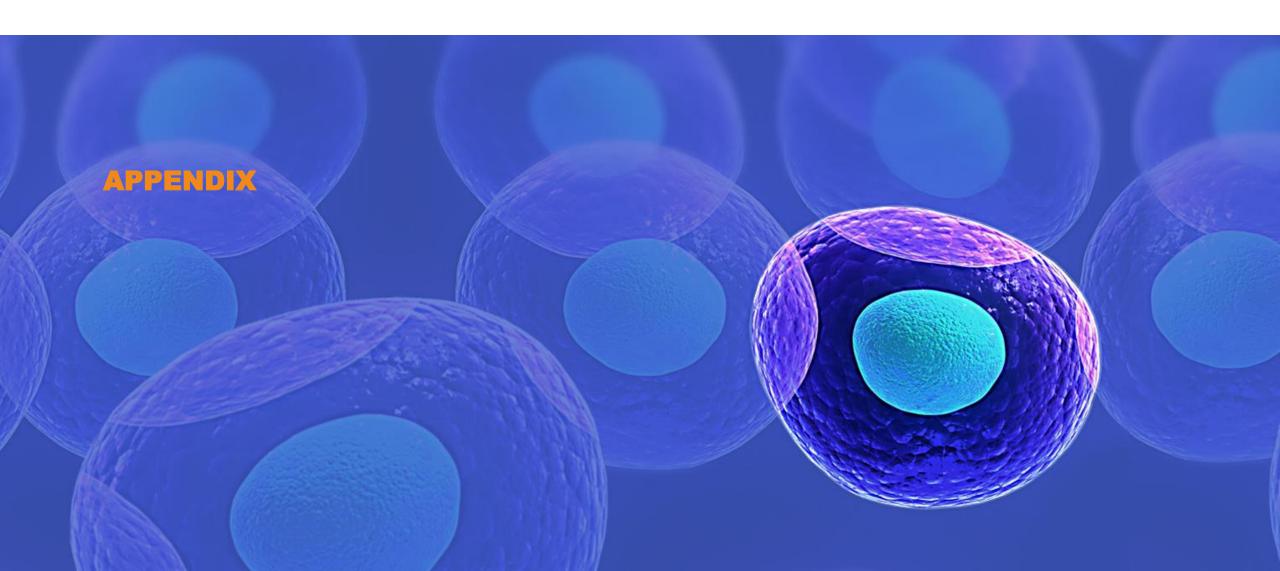
Mario Crovetto - CEO mario.crovetto@ikonisys.com

Alessandro Mauri - CFO alessandro.mauri@ikonisys.com











Brief company history

Launch of the IKONISCOPE GEN1 Instrument after FDA clearance. Significant initial sales success: 30 IKONISCOPE GEN1 systems sold within 3 years

2006

Cambria acquires a majority stake in the company



Re-focus of Ikonisys on its core products, with a new R&D program.

New oncoFISH ALK application.

New release of oncoFISH HER2

2016

New management

team appointed with focus on commercialization. Planning for **Ikoniscope Al** initiated.

Development of first commercially available oncoCTC

with ImpactLab 2019

IPO on Euronext Growth.

Manufacturing of the final Ikoniscope20. Creation of a sales organization. First sale of an Ikoniscope20.

2021



1999

Ikonisys is funded in New Haven, Connecticut, USA



2009-2015

Start of Ikonisys' own **CLIA Lab**, fully operational in 2009. Significant funds spent for laboratory operations and FDA approval of proprietary oncoFISH Cervical test. Laboratory **closed**



2017

Development of a series of prospective cancer applications:
Colorectal,
Oropharyngeal (LDT validated)
Specifications for Ikoniscope20 developed



Manufacturing of first Ikoniscope20 prototype.
Co-development agreement with Sheba Medical Center on specific

CTC apps

2020



Manufacturing of the 1st Ikoniscope20max. Start of Al projects for tissue analysis. Signing of distribution agreements for Middle East and Eastern Europe.

2022



in 2016



FY 2022 simplified Income Statement

	(audited)	(audited)
Euros	31/12/2022	31/12/2021
Revenues	935,218	542,701
Cost of Goods Sold	(184,413)	(70,642)
Gross Margin	750,805	472,059
Operating expenses	(2,103,452)	(955,712)
EBITDA	(1,352,647)	(483,653)
D&A	(1,083,135)	(80,579)
Interest expenses	(13,537)	(5,107)
Income / (Loss) before Tax	(2,448,320)	(569,339)
Taxes	<u>-</u>	1,931
Net Income / (Loss)	(2,448,320)	(571,270)





FISH testing: attractive reimbursement business for pathology labs

Favorable reimbursement rates are available in the US and Europe

- FISH testing at hospitals and clinics is mostly covered by the pathology lab's budget and reimbursed by DRG coding
- FISH testing at outpatient clinics and at doctor's offices is usually covered by country specific reimbursement catalogs
- Examples:

Reimbursement of FISH Testing				
USA:	Bladder cancer	488 USD		
Germany:	Any FISH application	377 EURO		
Italy:	Any FISH application	450 EURO		

> Customers have a clear incentive in automating their workflow, optimizing and increasing their throughput with an instrument that will allow them to increase the yearly net contribution margin from FISH testing



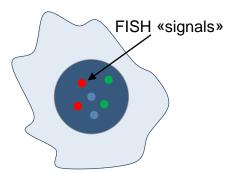


FISH at a glance

- FISH (Fluorescence In Situ Hybridization) is a technique that identifies and quantifies specific genes in cells or tissues
- By way of example a test for the HER2 gene can determine whether breast tumor cells have an increased number of copies of the HER2 gene (HER2 gene amplification)
- As HER2 amplified breast tumors are responsive to the drug herceptin a FISH test that determines the HER2 status of a breast tumor is of great value as a
 companion diagnostic test in determining the appropriate treatment for a patient with breast cancer

Example: measuring the number of copies of HER2 (Human epidermal growth factor receptor 2) in breast cancer to single out patients that are most likely to respond to Herceptin (trastuzumab) treatment.

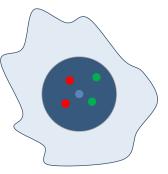
Normal



Normal copies (2 dots) of all targeted genes are present

Abnormal: HER2-

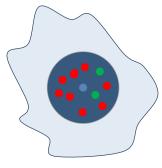
Prognosis: Poor



Hemizygous deletion (1 copy) of oncogene causing cancerous growth, HER2 numbers unaffected

Abnormal: HER2+

Prognosis: Favourable



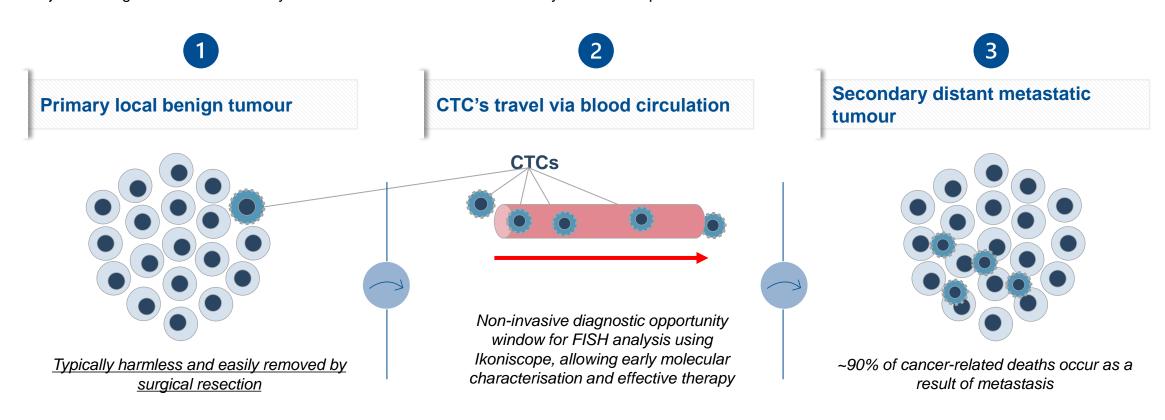
Hemizygous deletion causes cancerous growth, but HER2 amplification (8 copies) provides treatment target for trastuzumab





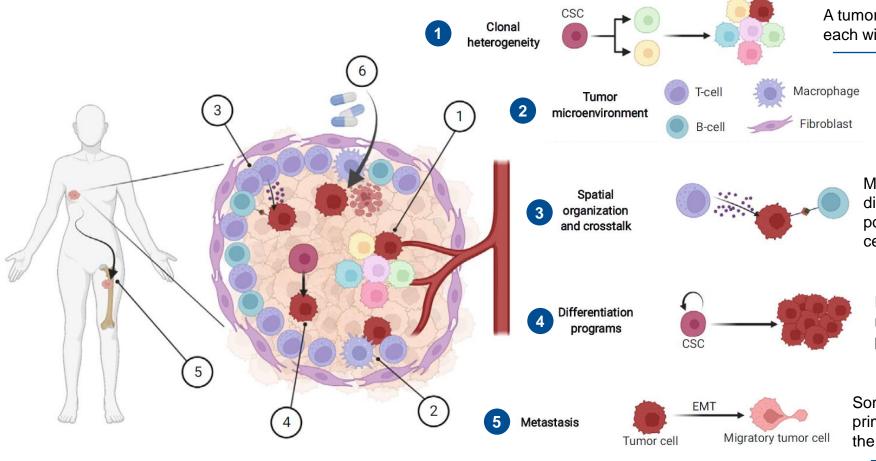
Circulating Tumor Cells (CTC) at a glance

- CTC are cells that detach from a tumor and circulate in blood, it has been known for more than 100 years
- These cells offer a source of tumor material for diagnosis, treatment monitoring and even screening for a variety of cancers
- Clearly being able to access tumor material on an ongoing basis through liquid biopsy rather than having to
- biopsy the tumor itself has great value
- A major challenge however is the rarity of these cells which is addressed by the Ikoniscope





Tumor heterogeneity and the importance of single-cell analysis



Resistance

mechanisms to

A tumor can comprise multiple malignant subclones, each with unique genetic and epigenetic properties

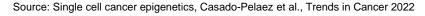
A tumor does not comprise solely malignant cells but harbors myriad types of non-malignant cell with distinct roles in cancer progression

Malignant and non-malignant cells are not randomly distributed inside a tumor, but instead occupy specific positions in the tumoral space, generating discrete cell–cell interactions that impact disease progression

Depending on their epigenetic background, each malignant cell can follow a specific developmental program that will impact the progression of cancer

Some cancer cells acquire the ability to leave their primary site and colonize distant tissues, which is the cause of most cancer-related deaths

Certain malignant subclones that are undetectable by bulk methodologies due to their low abundance may harbor key mutations and epimutations that render them resistant to treatments





Tumor cells